

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of

Yuki SASAKI et al.

Group Art Unit: 1618

Application No.: 10/731,031

Examiner: J. ROGERS

Filed: December 10, 2003

Docket No.: 118048

For: RESIN POWDER FOR COSMETIC AND COSMETIC USING THE SAME

REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following remarks are in reply to the Examiner's Answer, mailed April 29, 2008.

I. The Examiner's Answer Contains Additional Errors in Fact and Law

A. Shape Factor Calculation

In the Examiner's Answer, the Examiner alleged on pages 8-9 that because shape factor is determined based on area and because area of an ellipsoid is based on a, b and c (formula provided at the bottom of page 8 of the Examiner's Answer:

$$A = 2\pi \left(c^2 + b\sqrt{a^2 - c^2}E(\alpha, m) + \frac{bc^2}{\sqrt{a^2 - c^2}}F(\alpha, m) \right),$$

then clearly shape factor is dependent upon a, b and c and not independent as allegedly argued by Appellants. This reasoning is in error.

Appellants did not argue that shape factor is independent from a, b and c. Rather, Appellants asserted that a resin particle's b/a and c/b ratios are not dependent on SF1 values. This assertion is confirmed by Preparation Examples 1, 3 and 4 of the present application, which illustrate that SF1 values are independent of the dimensions b/a and c/b .

The Examiner does nothing more than possibly establish a link between shape factor and each of the variables a, b, c and ML (maximum length of the resin particle) individually. However, this "alleged link" does not indicate that a given shape factor can predict the dimensions for b/a and for c/b , but in fact establishes the opposite. In other words, as all of the variables are independent variables, nothing can be predicted about the relationship between any two of the independent variables, including the relationship of b/a and c/b , from the shape factor value. The values of the relationships b/a and c/b are thus independent from any given shape factor value.

B. Dependent Claim Allegation

On page 9 of the Examiner's Answer, it is alleged that "[s]econdly from the limitation within claim 2 of [A]ppellants current claim set it would appear that any SF1 value within 110 to 140 would satisfy all of the limitations of independent claim 1." Not only is this statement unsupported, it is wrong as a matter of law and does not establish the alleged inherency of the present claims from the Sasaki references. Limitations in dependent claims do not indicate anything about the nature of separate limitations in independent claims, particularly with respect to the prior art.

The real issue is whether the Sasaki references provide any basis to support the Examiner's allegation that the Sasaki references would inherently achieve the recited b/a and c/b ratios. The Examiner continues to allege that the similarity in shape factors provides the basis to establish inherency of these recited ratios. However, the Examiner continues to rely on erroneous "facts" that do not establish that a particular shape factor value always indicates

a specific relationship for b/a and c/b . The Examiner further compounds this error by ignoring all of the evidence provided by the Appellants that confirm that the Examiner's allegation of inherency based upon shape factor is incorrect.

C. The Examiner's Answer is Internally Contradictory on Inherency

On page 10 of the Examiner's Answer, the Examiner alleges that the evidence in the first Rule 132 Declaration is insufficient because "[t]he only evidence shown by the affidavit that is considered persuasive is that a particle with an SF1 of 112 and 115 would not satisfy the equation of claim 1 which is to be expected since both the Sasaki references clearly state that a particle with an SF1 of less than 110 are spherical, thus it is not surprising that $b/a=1$ and $c/b=1$ since the dimensions of a sphere would be uniform" (emphasis added).

The Examiner thus alleges that it is to be expected that a particle with a shape factor of 112 and 115 would not satisfy the recited range for b/a and c/b . Of course, this is directly contradictory to the Examiner's inherency allegation, which rests upon the theory that a particle with a shape factor of 110-140 must always possess a value of b/a and c/b satisfying the recited ranges. Clearly, inherency in the recited b/a and c/b ranges has not been established by the Sasaki references.

D. The Continued Dismissal of the Rule 132 Declaration Evidence is in Error

On page 10 of the Examiner's Answer, the Examiner again dismisses the evidence in the first Rule 132 Declaration. Table 1 of the first 132 Declaration showed that particles of resin powders formed in accordance with the teachings of Sasaki '370 and Sasaki '649 exhibit $b/a = 1$ and $c/b = 1$, and thus clearly fail to satisfy the recited equations, $0.5 < b/a < 1$ and $0.4 < c/b < 0.8$, as specifically defined in claims 1, 15 and 18-20.

The Examiner alleges that "[t]he examples within the Sasaki references were given solely for the purpose of illustration and were not to be construed as being limiting to their invention since many variations are possible without departing from the spirit and scope of

the invention." A similar allegation was made on page 12 of the Examiner's Answer regarding the second Rule 132 Declaration, which established, as set forth in Tables 1 and 2 of the second Declaration, that particles in Sasaki '370 and Sasaki '649 having various shape factors from 110-140 do not satisfy the b/a and c/b values of the present claims.

First, the evaluated examples in the Sasaki references were set forth in the references as examples of the inventions described therein. Appellants are not trying to "limit" Sasaki to these examples. Instead, Appellants used the actual examples of the Sasaki references to show that the Examiner's allegation of inherency was factually incorrect.

Moreover, it is the Examiner that is attempting to limit the Sasaki references. Specifically, the Examiner wishes that both Sasaki references be limited to embodiments that somehow magically satisfy the recited b/a and c/b ratios, while all other embodiments in Sasaki '370 and Sasaki '649 that clearly do not satisfy the recited ranges (as confirmed by the evidence in the first and second Rule 132 Declarations provided by Appellants) are ignored as allegedly being mere illustrations of other embodiments of the references. It is the Examiner, not the Appellants, that is improperly limiting the teachings of the Sasaki references, and improperly dismissing Appellants' evidence of non-inherency as a result.

Finally, on page 12 of the Examiner's Answer, the Examiner alleges that Appellants have "consciously selected" only examples that are spherical in nature, for example with shape factors of around 110. This is incorrect for several reasons. First, in the second Rule 132 Declaration, Appellants selected each of the first seven examples in Sasaki '370 and each of the first eight examples in Sasaki '649 for evaluation. There is clearly no picking and choosing among examples as alleged by the Examiner. Second, Appellants direct the Board to the results in Table 2 on page 3 of the second Rule 132 Declaration. Table 2 shows an evaluation of particles with large shape factor values, including at 130, 141, 142 and the like, and further shows that even with these larger shape factor values, the particles do not satisfy

the recited ranges for b/a and c/b . Clearly, this evidence contradicts the Examiner's assertion that evidence was provided comparing only to particles with shape factor values close to 110, and further contradicts the Examiner's theory that the larger the shape factor value, the more likely it is the particle will inherently satisfy the b/a and c/b ranges.

The evidence in the Rule 132 Declarations is clearly relevant to the issue of inherency alleged by the Examiner, and fully rebuts the Examiner's theories of inherency. The continued dismissal of this evidence by the Examiner is incorrect. Proper consideration of this evidence clearly confirms that the rejections based upon Sasaki '370 and Sasaki '649, which rest upon this theory of inherency, are improper and should be withdrawn.

II. Sakuma Fails to Remedy the Deficiencies of Sasaki '370

On page 13 of the Examiner's Answer, the Examiner cites Sakuma as allegedly describing the recited reshaping treatment. However, the combination of Sasaki '370 and Sakuma would not have provided any reason or rationale for one of ordinary skill in the art to have used the reshaping treatment of Sakuma to achieve the recited b/a and c/b ratios.

The Examiner has continuously alleged that the Figures of Sakuma illustrate "rugby-shaped particles" or particles of similar shape. See Examiner's Answer, page 13. Figures 9 and 11 of Sakuma may be taken as alleged illustrations of the particles of Sakuma the Examiner references. Figure 9 corresponds to Example 25 of Sakuma and Figure 11 corresponds to Example 27 of Sakuma. See Sakuma, paragraphs [0258] and [0264]. From Figures 1-3 of Sakuma, it appears that the d/D ratio described in Sakuma may correspond to the b/a ratio recited in the present claims. See below for a graphical representation.

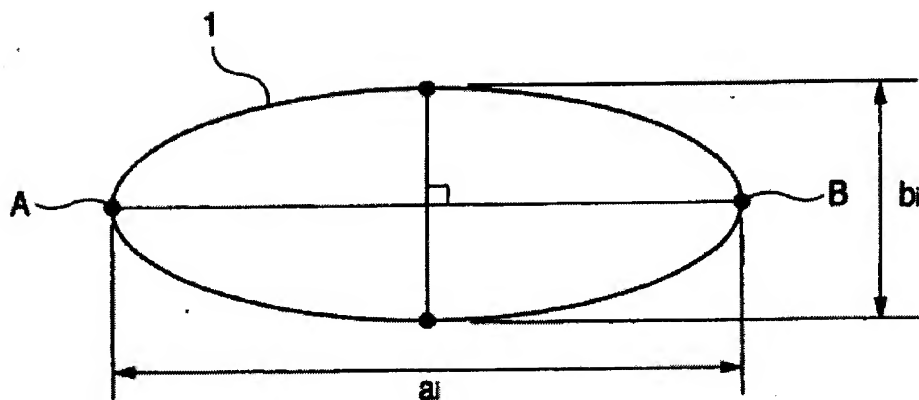


Figure 1: Graphical Representation of b/a Recited in the Present Claims

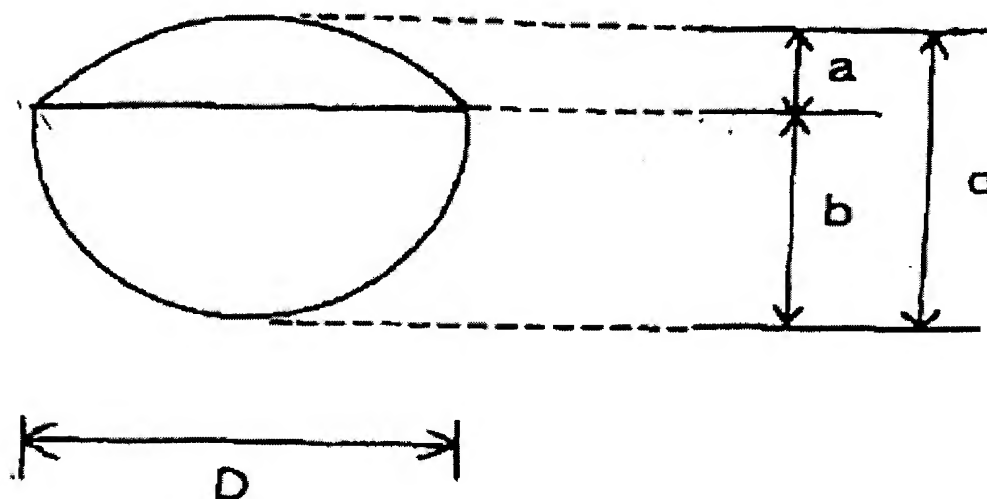


Figure 2: Figure 1 of Sakuma (reproduced)

Example 25 and Example 27 indicate that the d/D ratio for Figures 9 and 11 is 0.41 and 0.28, respectively. See Sakuma, paragraphs [0256] and [0266].

As both of the d/D ratios are currently outside the claimed range of b/a and c/b , Appellants submit that the particles of Sakuma would not have provided one of ordinary skill

in the art with any reason or rationale to have produced a particle according to the formulas (i.e., $0.5 < b/a < 1$ and $0.4 < c/b < 0.8$) recited in claims 1, 15 and 18-20.

Furthermore, Appellants submit that it is described in the present application that particles with the recited dimensions have a shape that "is not a so-called cigar shape or an acicular or tabular form, but a disk-like shape or an elliptical shape keeping a sphere to some extent, such as a rugby ball shape." See page 12, line 24 to page 13, line 2 (emphasis added). The present application also teaches that "such a shape can be generally regulated according to $0.5 < b/a < 1$ and $0.4 < c/b < 0.8$." See page 12, line 24 to page 13, lines 2-4 of the specification.

Sakuma only refers to these particles as undesirable "non-spherical resin particles having no boundary line, for example, hemispherical, rugby ball shaped, wooden-bowl shaped and go stone shaped particles which have been reported" (see paragraph [0117] in Sakuma (emphasis added)). Sakuma thus requires particles with a distinct boundary line, and specifically indicates that the particles therein are shaped differently than the particles disclosed in the present application having a rugby ball shape.

As such, Sakuma specifically teaches away from rugby ball shape particles for this additional reason, indicating that such particles lack a sufficient number of particles per unit weight and a boundary line, and thus teaches away from particles having the b/a ratio between 0.5 and 1.0 and the c/b ratio between 0.4 and 0.8 as recited in the present claims.

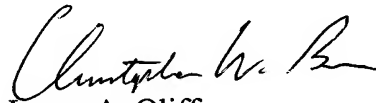
Therefore, Appellants assert the shape of the particles of Sakuma and the Examples of Sakuma not only fail to describe particle dimensions that satisfy the recited b/a and c/b ranges, but in fact teach away from particle dimensions that satisfy $0.5 < b/a < 1$ and $0.4 < c/b < 0.8$ as required in claims 1, 15 and 18-20. Thus, the combination of Sasaki '370 and Sakuma does not achieve a resin powder having particles with dimensions that satisfy the equations (i.e., $0.5 < b/a < 1$ and $0.4 < c/b < 0.8$) specifically defined in claims 1, 15 and 18-20. As

such, the 35 U.S.C. §103(a) rejection maintained by the Examiner is improper and should be reversed.

III. Conclusion

For all the reasons stated in the Brief on Appeal, as well as the additional reasons set forth above, Appellants respectfully request this honorable Board to reverse the rejections of claims 1-16 and 18-20.

Respectfully submitted,



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